response to treatment were felt to confirm the etiologic association between secondary syphilis and nephrotic syndrome and to exclude diabetic nephropathy as the cause of his nephrotic syndrome.

A year after the diagnosis of nephrotic syndrome from secondary syphilis was made, he continued to be free of edema. A lumbar puncture was done a year later to exclude neurosyphilis. Cerebrospinal fluid chemistry measurements and cell counts were normal, and the VDRL was negative.

Discussion

From 1981 to 1989, the incidence of primary and secondary syphilis increased 34% in the United States.[2] This increase has occurred since the mid-1980s and is a result of the remarkable increase in the incidence of syphilis among African Americans. Syphilis continues to be the great mimicker of diseases. Many of its later manifestations are related to immune complex formation with tissue deposition.[3-9] There are few reports of renal involvement from secondary or latent syphilis in the past two decades in the English-language literature.[7-14] In the cases in which biopsies were obtained, an immune complex glomerulonephritis has been identified.[7-10,14] Microscopic studies of renal biopsy specimens have most often revealed a membranous glomerulonephritis,[3,4,7,14] but minimal change[8,13] and proliferative glomerulonephritis[9] have also been identified. Antitreponemal antibody has been eluted from renal glomerular deposits obtained by biopsy.[3,9]

Together these case studies support an immune complex origin for the nephrotic syndrome associated with secondary or latent syphilis.[3-14] Fortunately, this nephrotic state is short-lived with appropriate antisyphilitic treatment. In our patient and the several others with reported follow-up, the nephrotic state appears to last from a week[8] to several months after appropriate antimicrobial therapy has been administered.[14] With an increasing incidence of primary and secondary syphilis occurring since the mid-1980s,[2] syphilis must be considered in a patient with otherwise unexplained nephrotic syndrome. Because of the association of the acquired immunodeficiency syndrome with syphilis, syphilis should be considered when unexplained proteinuria and nephrotic syndrome occur in such patients.

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Seat Belt Use During Pregnancy

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MOTOR VEHICLE crashes are a major cause of death in women of childbearing age,[1] and a major proportion of all maternal deaths are caused by motor vehicle crashes.[2,3] It is well documented that the use of seat belts greatly reduces serious injury and death.[4-6] Several studies of pregnant women have shown improved survival of mothers and their fetuses when seat belts were worn at the time of motor vehicle crashes.[7,8] Although the use of seat belts has been mandated by state law in New Mexico since 1986, the percentage of pregnant women using seat belts is not known. Furthermore, little is known about attitudes and beliefs of pregnant women regarding the use of seat belts during pregnancy. The frequency of seat belt use and the factors influencing their use were investigated in women attending obstetric clinics affiliated with the University of New Mexico Department of Obstetrics and Gynecology.

Patients and Methods

During April and May 1989, all pregnant women receiving prenatal care through the University of New Mexico Hospital and its affiliated community clinics were asked to complete a questionnaire. All questionnaires were in English. Non-English-speaking patients, who make up about 5% of the clinic population, did not complete the questionnaire. The sample we analyzed thus represents a convenience sample of English-speaking, English-reading gravid women. The questionnaire was designed to be self-administered to assess demographics, risk-taking behavior—previous motor vehicle crashes, substance abuse—trimester of the initiation of prenatal care, seat belt use before and during pregnancy, reasons for seat belt use or nonuse, and personal knowledge about the use of seat belts during pregnancy. Data were analyzed using SAS packages (Version 5, SAS Institute, Cary, North Carolina). Statistical significance was evaluated using the χ^2 test unless otherwise indicated.[9]

Results

A total of 207 questionnaires were received from the two hospitals and from the four community-based obstetrics clinics. The response rate was approximately 75%. Most respondents were young, married, Hispanic gravid women (Table

(Schiff M, Kasnic T, Reiff K, Pathak D: Seat belt use during pregnancy. West J Med 1992 Jun; 156:655-657)

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1). Most completed the questionnaire during their second (34%) or third (56%) trimester of pregnancy.

Because neglecting to wear a seat belt can be considered a form of risk taking, the study population was questioned about other risk-taking behaviors. The use of tobacco, alcohol, and illicit drugs before and during pregnancy is summarized in Table 2. There was no relationship between risk-taking behavior and seat belt use before or during pregnancy.

TABLE 1.—*Demographic Characteristics of Women Completing Seat Belt Questionnaire (n=207)*

Characteristic	%	Characteristic	%
Mean age 24 yr		**Educational level**	
Range 14-42 yr		8th grade	3
Marital status		9th-11th grade	33
Single	39	High school graduate	37
Married	46	Some college/tech	20
Separated	4	College graduate	7
Divorced	11	**Monthly income**	
Ethnic background		<$250	20
Hispanic	60	$250-500	24
Non-Hispanic white	32	$501-750	26
African American	5	$751-1,000	22
Native American	1	$1,000+	8
Other	2		

TABLE 2.—*Substance Abuse Before and During Pregnancy, Seat Belt Questionnaire (n=207)*

Substance	Before Pregnancy, %	During Pregnancy, %	Significance, P
Tobacco (>½ ppd)	31	13	<.005
Alcohol (>3 drinks/wk)	19	1	<.005
Illicit drug	15	2	<.005

ppd = packs/day smoked

Nearly half (49%) of the women had been in a motor vehicle crash in the past (seriousness of the crash was not specified); of these, 53% were not wearing a seat belt. The 47% who had worn a seat belt were also more likely to wear a seat belt during pregnancy ($P < .002$).

Figure 1 shows the frequency of seat belt use before and during pregnancy. A significantly higher proportion of women reported a more frequent use of seat belts during pregnancy than before pregnancy ($P < .0001$, paired Student's t test).

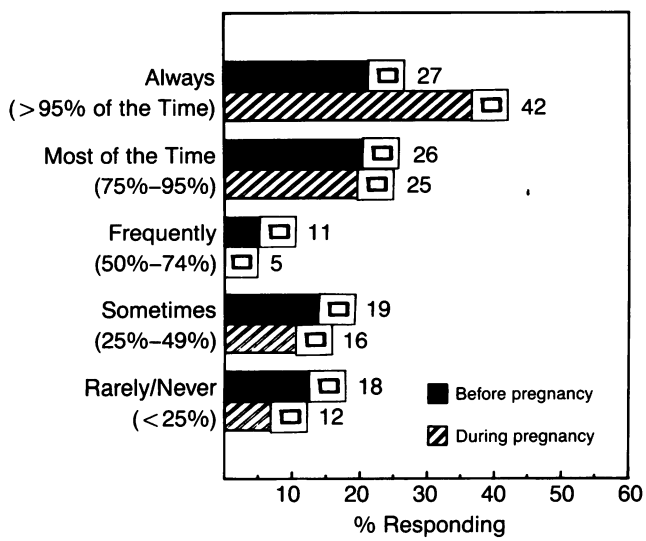

Figure 1.—The frequency of seat belt use before and during pregnancy is shown for 207 women.

The reasons women chose for wearing a seat belt during pregnancy are shown in Figure 2. Subjects wore seat belts to prevent injury to themselves or their fetuses. Many women reported wearing a seat belt to comply with state law. A wide variety of reasons were given for not wearing seat belts (Figure 3). More than half reported simply forgetting to wear a seat belt. Some stated the belt was uncomfortable to wear during pregnancy.

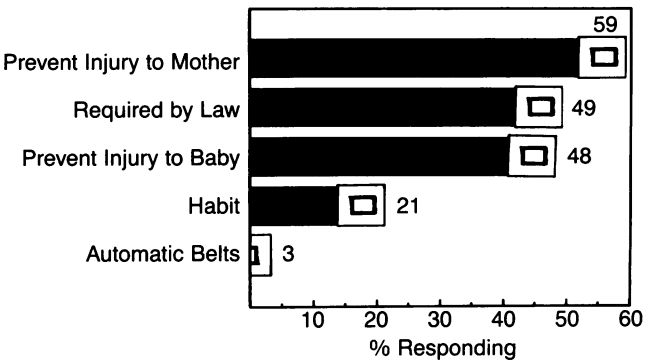

Figure 2.—Reasons for use of seat belts by 193 pregnant women are summarized (more than 1 answer was given by most women).

When the study population was divided into frequent (≥75% of the time) and infrequent (<75% of the time) seat belt wearers, the main reasons for the use of seat belts during pregnancy were different ($P < .0001$) (Table 3). Women who were frequent wearers were more likely to be motivated by the prevention of injury to themselves and by habit, whereas those who were infrequent wearers were more likely to be motivated by the law.

TABLE 3.—*Main Reason for Seat Belt Use Among Frequent Versus Infrequent Seat Belt Wearers*

Main Reason	Frequent Seat Belt Wearer* No.	(%)	Infrequent Seat Belt Wearer† No.	(%)
Prevent injury to self	36	(38)	7	(17)
Prevent injury to baby	23	(24)	8	(20)
Habit	14	(15)	0	(0)
Required by law	21	(22)	25	(61)
Other	2	(1)	1	(2)
Total	96	(100)	41	(100)

*≥75% of the time. †<75% of the time.

Only 16% of the women had received any information about the use of seat belts during pregnancy. Almost a third (30%) of our sample were uncertain about the safety of seat belts during pregnancy, and 26% did not know the correct way to position a seat belt while pregnant.

Discussion

Motor vehicle crashes as a cause of maternal morbidity and mortality are a serious public health problem. Thus, the prevention of such morbidity and mortality through the use of seat belts during pregnancy should be an important public health goal. In New Mexico motor vehicle fatalities are

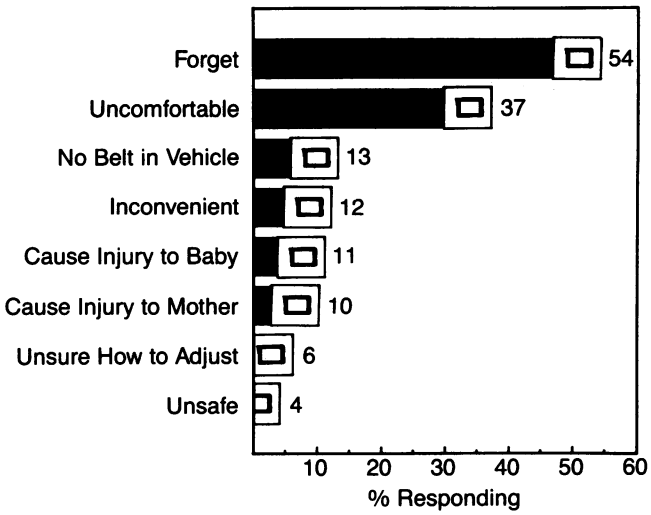

Figure 3.—Reasons for the non-use of seat belts by 145 pregnant women are summarized (more than 1 answer was given by most women).

nearly twice the national average.[1] More than half of our subjects had already experienced a motor vehicle crash. Thus, pregnant patients are at risk of injury or death from motor vehicle crashes.

Studies investigating the use of seat belts during pregnancy have shown a range of use from 32% to 90%.[10,11] This reflects not only use of seat belts but also seat belt laws and their enforcement as well as bias in reporting by subjects. Only one study made direct observations of pregnant patients in a parking lot of a prenatal clinic.[12]

Few studies have investigated changes in the use of seat belts prompted by pregnancy. Arneson and associates[10] found an increased use of seat belts during pregnancy in a retrospective study of postpartum patients. Our study population also increased the use of seat belts significantly during pregnancy when compared with use before pregnancy. The reason for this increased use was not addressed, although the change may reflect the women's overall decrease in risk-taking behavior—tobacco, alcohol, and drug use—during pregnancy.

The reasons for using seat belts during pregnancy focus on safety as well as legal issues. Our study confirms other reports[10,11] that showed that women use seat belts during pregnancy to protect themselves and their fetuses from injury. In the general population,[13,14] a law mandating the use of seat belts is the single most influential factor in increasing use. This is true for pregnant women as well, because a significant proportion of our subjects chose the law as a reason for wearing a seat belt during pregnancy.

Even with an overall increase in the use of seat belts, a significant proportion of our subjects were infrequent wearers. Attico and co-workers[15] conducted a seat belt promotion campaign in prenatal clinics in the Phoenix Area Indian Health Service. Pregnant women were given dashboard stickers to help remind them to buckle up. Although physical reminders help patients to remember to wear seat belts, the issues of correct positioning and uncertainty about the safety of seat belts during pregnancy emphasize the need to educate patients. Educators should remind patients that a proper use of seat belts during pregnancy involves placing the lap-belt portion under the abdomen and across the upper thighs, and the shoulder belt should cross the shoulder without chafing the neck and be positioned between the breasts.

Chang and associates[12] documented an increase in the use of seat belts after prenatal education classes that focused on seat belt use during pregnancy. Although the education of patients has proved effective, motor vehicle safety education programs are not routinely provided. Fewer than one of three obstetricians discuss the use of seat belts with their prenatal patients, and education material for patients about the use of seat belts is scarce in physicians' offices.[16]

Although there is a significant increase in the use of seat belts during pregnancy, a large proportion of pregnant women do not wear a seat belt consistently. To reduce maternal and fetal morbidity and mortality from motor vehicle crashes, education concerning motor vehicle safety during pregnancy must become an integral part of providing prenatal care.

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Reexpansion Pulmonary Edema in AIDS

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SPONTANEOUS PNEUMOTHORAX in association with *Pneumocystis carinii* pneumonia in patients with the acquired immunodeficiency syndrome (AIDS) has been reported with increasing frequency. Reexpansion pulmonary edema is an unusual but well-described phenomenon that can occur with treatment of a pneumothorax. A case of reexpansion pulmonary edema after treatment of an AIDS-related pneumothorax is presented.

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